

PPD's News to Live By

June 2012

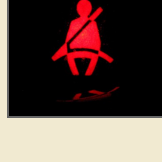
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Bypassing Safety Systems

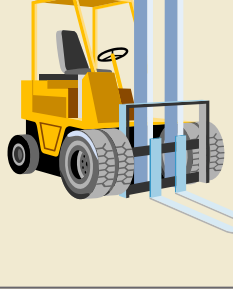
Bypassing a machine's safety system could cost you your life, or someone else's. The Deepwater Horizon incident investigation found that a [pressure regulator valve](#) (designed to automatically cut off the flow of gas at a certain pressure) had been placed into bypass mode, to [avoid false alarms](#).

How many try to drive without a seat belt, yet are irritated by the constant chime of our seatbelt reminder? Who overrides the seatbelt chime by clicking their seatbelt in, but not while wearing it? What is the reasoning that this is safe? Because you've done it so many times without being in an accident? That you're only traveling a short distance, so why bother putting the belt on? That you're only traveling at 40 mph max, you won't be seriously injured in a crash?



Unfortunately for those who convince themselves that this safety system bypass is okay, fatalities can occur at speeds as slow as 12 mph on non-belted occupants, and the majority of crashes occur at speeds of less than 40 mph. See more facts on driver safety provided by the [Missouri Department of Transportation](#).

The majority of forklifts (and riding lawnmowers) now have what is often called a "dead-man switch" which will cut the engine off if the operator leaves the seat. Below are a couple of examples where the switch may have been overridden:



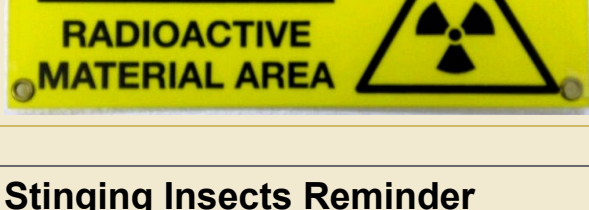
- A man was recently [killed in Sycamore](#) while performing maintenance on a forklift. He somehow became caught in the forklift and was crushed. Merely speculation, but if the forklift's dead-man switch was functioning properly, then this man may have inadvertently hit one of the controls while climbing around the forklift (possibly stepping on the seat), causing the mast to be able to move and crush him.
- A [very similar incident](#) in 2002 killed a worker who stood on the seat of his forklift to read a tag on the pallet he was moving. It is believed that he may have kicked one of the controls, causing the mast to crush the worker against the cage of the lift.

Please make note of the safety systems in the equipment you use and remember that it is there for a purpose; to prevent injury or death. Never purposefully bypass or override a safety system.

Metals Recycling Update

In 2011, the DOE Office of Science reviewed Fermilab's materials and radiological clearance operations to determine how Fermilab has implemented the Secretarial policies, and whether we could make adjustments in our current practices that improves the management of scrap metal while still meeting the requirements of the suspension on the release of scrap metal for recycling from radiological areas.

The review team recommended that we adhere to the strict Federal regulation definition of a Radiological Area when applying it to our scrap metal recycling. The definition states: a radiological area is any location that is posted as a Radiation Area, High Radiation Area, Very High Radiation Area, Contamination Area, High Contamination Area or Airborne Radioactivity Area.



As of May 1, 2012, materials that have been determined to not be radioactive that originated from a posted Radioactive Materials Area are no longer subject to the suspension, and can now be designated as "Group 1" on the Material Move Request. Materials that originate from radiological areas continue to be subject to the metals recycling suspension until further notice.

Stinging Insects Reminder

Stinging insects are back again, and since they are the leading cause of injury at the lab during our warmer months, we ask that you take the following precautions:

- Before beginning work, inspect the area where activities will take place. Avoid nests and other areas of concentration.
- If working in an area where wasps are present, cover body areas that may be targeted. Wearing protective gloves, long sleeves, a hat and neck cover can help prevent stings.
- Tucking shirts into pants and pulling gloves over sleeves can help eliminate entry points for insects.
- If a wasp or bee lands on you, hold still. It will eventually leave on its own.
- Outdoors avoid sugary drinks, brightly colored clothing or strong fragrances.
- If you are allergic to stings, be prepared. Carry a self-administered epinephrine sting kit (e.g., EpiPen). Let others know of your condition.



If you are ever stung, report to medical.

More information about wasps, bees and other stinging insects can be found at the following sites:

- University of Minnesota's: [Wasp and Bee Control](#)
- CDC/NIOSH's: [Insects and Scorpions page](#)
- National Ag Safety's: [First Aid for Bee and Insect Stings](#)



Thank You!

PPD ES&H would like to thank Tim Griffin and Mark Shoun for finding precariously stacked shielding blocks are reporting them to our group. We contacted Accelerator Division who sent out individuals to take care of the block right away.

Again, thank you for reporting this hazardous condition!



June is National Safety Month

This year's safety month will be used to promote the following topics:

Week 1: [Employee Wellness](#)

Resources to help you achieve improved diet or activity levels include:

- [ChooseMyPlate.gov](#)
- [Supertracker](#)
- [Fruits and Veggies Matter](#)
- [Physical Activity for Everyone](#)

Week 2: [Work Ergonomically](#)

(see [Gardening Ergonomics](#) in this newsletter)

Week 3: [Prevent Slips, Trips and Falls](#)

Week 4: [Drive Safety](#)

Please take a look at the materials for each week. The information provided may help you prevent injuries both on and off-the-job.



Gardening Ergonomics

From ESH Today Magazine

Most of us garden to relax and enjoy the outdoors. However, gardening could land you in the hospital. According to the U.S. Consumer Product Safety Commission (CPSC), an estimated 400,000 people are hurt in their gardens each year from lawn or garden tools, and thousands more are hurt from the act of gardening – bending, stooping, reaching and grasping.

"Gardening can be an ergonomic nightmare," explains Josh Kerst, vice president and ergonomics engineer at Humantech. Maintaining awkward movements and body positions – such as bending and twisting – for long periods of time eventually can wear out the body and cause discomfort. If you have done any amount of gardening, you have felt it: sore wrists, low back pain, neck pain or just all-around body aches.

Gardening should not hurt. As a gardening enthusiast himself, Kerst outlines some common things gardeners should do to prevent injuries.

Gardeners should know that having the right tools is key to maintaining the energy required to work outside and to remain injury-free.

- To avoid lifting, rake leaves onto a canvas tarp. When the tarp is full, pull it to the desired location and unload it.
- Always use gloves (knee pads can be used too) to provide padding and to prevent cuts and scrapes. Gloves should be form-fitting; thin gloves are preferred. Too much padding will reduce grip strength.
- Use ergonomic tools, but be aware that just because the tool is labeled "ergonomic" does not mean it is. If the tool feels good in the hand, it probably is.
- Always use gloves (knee pads can be used too) to provide padding and to prevent cuts and scrapes. Gloves should be form-fitting; thin gloves are preferred. Too much padding will reduce grip strength.
- Use ergonomic tools, but be aware that just because the tool is labeled "ergonomic" does not mean it is. If the tool feels good in the hand, it probably is.
- Pay attention to handle diameter, size and weight. Telescopic and pistol-grip handles require less energy to perform work; a curved handle provides more leverage with less wrist stress because it is designed to fit the natural curve of the hand.
- Maintain tools by keeping them sharp. A dull blade will require more effort and force and could lead to injury.

Keep Your Work in the "Comfort Zone"

According to Kerst, "All work should be kept in the comfort zone (as close to the body as possible) to eliminate or reduce unnecessary movements such as reaching, lifting and extending. The comfort zone is similar to the baseball strike zone (knees to shoulders at roughly an arm's reach distance away from the body).

"The farther you reach from the center of your body, the higher force you will experience," explains Kerst.

Regardless of the task, ergonomics is the practice of fitting the job to the person. Injuries occur when people begin to work outside their capacity. Here are some ways to keep the work in the neutral state:

- Keep elbows below heart level as much as possible. Use of long-handed tools or take periodic breaks to keep your body in a comfortable position.
- Avoid working with your thumbs pointing toward the ground. This arm position "wings" your elbow out to the side, reducing your applied strength and adding stress to the body.
- Work with wrists in a neutral position: straight – in line with the forearm – and with thumbs up. Remember to hold objects with a light grasp or grip.
- Avoid fine-motor repetitive movements such as pinching and pulling (often with the index finger and the thumb).
- Try to limit your continuous extended reaches to fewer than 10 to 15 seconds. Take short breaks between segments to prevent injury and overexertion.
- Minimize the time spent working with your head and neck in an extended position (looking up). Take periodic breaks to avoid fatigue.

Finding ways to keep work in the comfort zone puts our work directly in front of us, where we are strongest, have the best dexterity and visual acuity and can work in neutral postures.



SPOT Skin Cancer

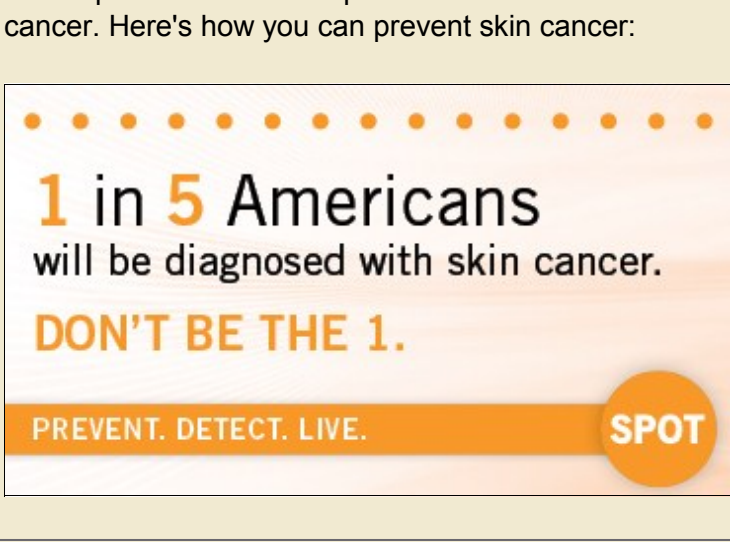
A new campaign promoted by the American Academy of Dermatology wants you to learn about skin cancer and how to prevent it.

The following can be found on [their site](#):

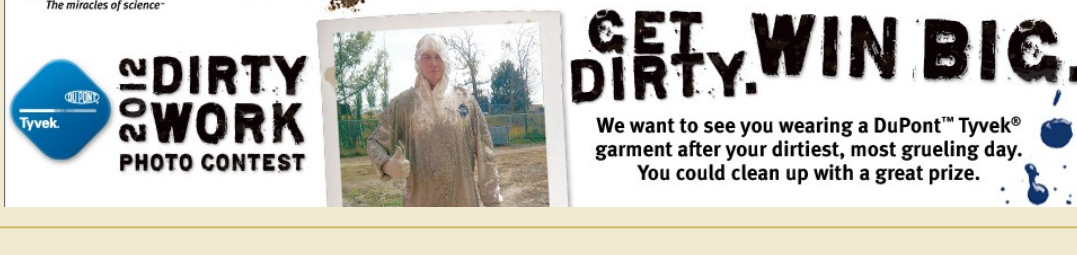
Skin cancer is an abnormal growth of skin cells. It most often develops on areas of the skin exposed to the sun's rays. Skin cancer affects people of all colors and races, although those with light skin who sunburn easily have a higher risk.

There are three types of skin cancer that account for nearly 100% of all diagnosed cases: basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and melanoma. (Did you know that studies have found a 75 percent increase in the risk of melanoma in those who have been exposed to UV radiation from indoor tanning?)

Sun exposure is the most preventable risk factor for all skin cancers, including melanoma. You can have fun in the sun and decrease your risk of skin cancer. Here's how you can prevent skin cancer:



- **Seek shade when appropriate.** Remember that the sun's rays are strongest between 10 a.m. and 2 p.m. If your shadow appears to be shorter than you are, seek shade.
- **Wear protective clothing,** such as a long-sleeved shirt, pants, a wide-brimmed hat, and sunglasses, where possible.
- **Generously apply a broad-spectrum, water-resistant sunscreen** with a Sun Protection Factor (SPF) of 30 or more to all exposed skin. "Broad-spectrum" provides protection from both ultraviolet A (UVA) and ultraviolet B (UVB) rays. Reapply approximately every two hours, even on cloudy days, and after swimming or sweating.
- **Use extra caution near water, snow, and sand** because they reflect and intensify the damaging rays of the sun, which can increase your chances of sunburn.
- **Avoid tanning beds.** Ultraviolet light from the sun and tanning beds can cause skin cancer and wrinkling. If you want to look tan, consider using a self-tanning product or spray, but continue to use sunscreen with it.



Dirty Work Photo Contest

Does your group/department do some dirty work? If so, your group may be eligible to compete in the DuPont Tyvek Dirty Work Photo Contest. Learn more [here](#).

The "Doh!" Photos of the Month

Submitted by Bill Noe & Walt Jaskierny



PPD May Injuries

No injuries reported!

May Winner!!!



Challenge



Jennifer Koch

Winning Caption:

"Who's idea was this again?!"

Runner's Up:

- "I have total faith in you man!"
- Extreme tug-o-war!



May Contest

For a chance to win your choice of a PPD ES&H acrylic cup or a coffee certificate for the cafeteria, provide a humorous caption for this photo:



Please submit your responses/answers to [Angela Sands](#) by June 20th.

(If there are multiple correct answers/entries, a drawing is held.)